

**CLARIFYING STATE WATER RIGHTS
AND ADJUDICATIONS**

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[Formerly Special Master (1990-2000)
Arizona General Stream Adjudication]

*Two Decades of Water Law and Policy Reform:
A Retrospective and Agenda for the Future*
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I. What Are General Stream Adjudications?—Legal proceeding involving multiple water users brought to determine ownership and characteristics of water rights to a river system or other common source of water.

II. Water Litigation Before General Stream Adjudications

A. Spanish law

1. Influenced by Roman law and other sources, the Spanish developed complete water law doctrines and obtained extensive water management experiences in the arid regions of their country. As they began colonizing the Southwest in 1520, the Spanish faced the considerable challenges in managing a vast New World empire from a distance of over 5,000 miles.
2. The Spanish were forced to develop new approaches to govern from such a distance. While Spanish law had been codified by King Alfonso X in a historic document called *Las siete partidas*, a version was especially adopted for the New World in 1681. This *Recopilación de leyes de lost reynos de las Indias* decentralized Spanish authority among numerous local officials in the colonies and provided them with broad policies and guidelines to assist in ascertaining and applying the Crown's will.
3. This body of law set forth principles and procedures for resolving disagreements over water in the Colonies. Pragmatic and equitable criteria were provided for resolving water disputes. Legal title and prior use were to be honored but they did not defeat the claims of especially needy people, the changing needs of the Crown, important third party rights, or the common good. Spanish law weighed multiple relevant factors and attempted to avoid a “winner take all” solution. See MICHAEL C. MEYER, *WATER IN THE HISPANIC SOUTHWEST: A SOCIAL AND LEGAL HISTORY, 1550-1850* at 20-21, 147-64 (1984); see also JOHN O. BAXTER, *DIVIDING NEW MEXICO'S WATERS, 1700-1912* (1997).

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- B. Common law—Actions at law for damages or in equity for injunctive relief.
 - 1. Bills in equity—Allows court “to acquire jurisdiction of all the rights involved and also of all the owners of those rights, thus settle and permanently adjudicate in a single proceeding all the rights, or claims to rights, of all the claimants to the water taken from a common source of supply.” CLESSON S. KINNEY, A TREATISE ON THE LAW OF IRRIGATION & WATER RIGHTS § 1532, at 2757-58 (2d ed. 1912).
 - 2. Quiet title suits—A person using or claiming water could join other parties but while the plaintiff’s rights could be adjudicated, the rights of the defendants were not subject to adjudication unless they placed their rights before the court in a cross-complaint. *Id.* § 1545, at 2782.
 - 3. Faced with the competing and interacting uses of many users of a shared river system or other water source, courts were unable to render decrees that provided certainty and finality.

III. Genealogy of Western General Stream Adjudications

- A. Colorado System—Judicial Adjudications
 - 1. 1879 Legislation—Irrigation committee of Colorado House of Representatives, dominated by lawyers, rejected the recommendation of an earlier irrigation convention to establish an administrative adjudication and enacted a judicial procedure that allowing district judges to appoint water referees who would gather evidence of claims and submit a report of priorities to the judge. 1879 Colo. Sess. Laws 99-105.
 - 2. 1881 Legislation—After a district judge refused to implement the law because the 1879 statute requires the court to initiate litigation on its own, the legislature modified the law to require the adjudication to commence with the filing of a petition by a water user. 1881 Colo. Sess. Laws 142-46; *see also* ROBERT G. DUNBAR, FORGING NEW RIGHTS IN WESTERN WATERS (1983).
- B. Wyoming System—Administrative Adjudications
 - 1. Working in Colorado, Elwood Mead became concerned that the courts had allowed the state’s rivers to become over-appropriated. He supported the state

engineer and the Colorado State Grande in an unsuccessful effort to create an administrative “board of control” that would govern all water diversions in the state.

2. Mead is hired in 1889 as Wyoming’s first state engineer and succeeds in placing water permitting and adjudication functions in such a board of control, consisting of the state engineer and the superintendents of the state’s four water divisions. *See* WYO CONST. art. VIII, § 2; 1890 Wyo. Sess. Laws ch. 25 (codified at WYO. STAT. ANN. § 41-4-322 (1995)). The constitutionality of this arrangement was upheld by the Wyoming Supreme Court in *Farm Investment Co. v. Carpenter*, 61 P. 258 (Wyo. 1900).
3. Under this administrative model, the state engineer initiates an adjudication by measuring the flow of a stream and gauging the capacities of ditches. A divisional superintendent conducts hearings and compiles evidence on existing uses. These reports are submitted to the board of control which makes the final quantification and determination of priorities.
4. The Wyoming system was adopted but modified in the process by Nebraska (1895; creates a board of irrigation), Utah (1897; establishes a Colorado-type state engineer); Utah (1903; adopts court-adjudications with the state engineer preparing a hydrographic survey); and Idaho (1903; essentially the same as Utah). The Wyoming system was adopted by Texas in 1913 but was declared unconstitutional.

C. Hybrid Approaches

1. Model State Irrigation Code (Bien Code, 1903)—Prepared by Morris Bien of U.S. Bureau of Reclamation at the request of the governors of Washington and Oregon in an effort to remove impediments for obtaining projects under the new National Reclamation Act. The code is strongly influenced by the Wyoming, Utah, and Idaho statutes.
 - a. The code provides for a state engineer, administrative permitting of new water rights by the state engineer, and adjudication procedures involving both the state engineer and the courts. The code appears to extend to both surface water and groundwater. U.S. Bureau of Reclamation, Draft of a

State Irrigation Code § 1 (2d ed. April 1905) (“All waters within the limits of the state from all sources of water supply belong to the public and . . . are subject to appropriation for beneficial use.”).

- b. Under the code, the state engineer makes “hydrographic¹ surveys and investigations of each stream system and source of water supply in the state, beginning with those most used for irrigation, . . .” *Id.* § 14. Upon completion, the state engineer provides the report to the attorney general who must, within sixty days, sue for an adjudication and join as parties all persons who claim rights in the source covered by the report. Also, the attorney general must intervene in private water litigation if the state engineer certifies that the public interest requires such action. *Id.* § 15.
- c. Significant portions of the Bien Code, including the adjudication procedures, are adopted by North Dakota (1905), South Dakota (1905), Oklahoma (1905), and New Mexico (1907). The code was not adopted by Washington or Oregon, the states whose governors had urged its drafting.

2. Oregon System

- a. In 1909, Oregon attempted to adopt a Wyoming-style statute, but the bill that finally passed the legislature diminished the board of control’s adjudication role. After completing its investigations, the board (now the water resources director) files its order of determination with the circuit court that hears any exceptions to the order. Once the exceptions are resolved, the court enters a decree affirming the order. OR. REV. STAT. §§ 539.110 & -.150 (1995).
- b. The Oregon adjudication approach was adopted by California (1913; creating a state water commission), Nevada (1913), Arizona (1919; also substituting a state water commission for the board of control), and Texas (1967).

D. Present Configuration of Adjudications—In recent decades, some states have modified their laws sufficiently to change their pedigree. For instance, Arizona in

¹ “[T]he study, description, and mapping of oceans, lakes, and rivers, esp. with reference to their navigational and commercial uses.” WEBSTER’S NEW WORLD DICTIONARY (3d college ed. 1988).

1980 abolished the state water commission and shifted from the Oregon model of adjudications to essentially the Bien Code approach. Some of these changes were in response to criticisms that predominately administrative adjudications would not satisfy the federal McCarran Amendment (*see* Part V, *infra*). The present configuration of western adjudications is as follows (see Appendix A for citations to the general stream adjudication statutes of eighteen states):

1. Adjudications that are exclusively judicial—Colorado. *See* Gregory J. Hobbs, Jr., *Colorado's 1969 Adjudication and Administration Act: Settling In*, 3 WATER LAW REV. 1 (1999).
2. Adjudications that are exclusively administrative—Wyoming (outside Big Horn River adjudication), Nebraska, Kansas.
3. Adjudications that may be conducted by courts or administrative agencies—California, Alaska (must be judicial process if federal rights are involved).
4. Adjudications involve significant administrative action (hydrographic survey report, order of determination, or departmental referee's report), followed by judicial consideration and confirmation—Arizona, California, Idaho, Montana, Nevada, New Mexico, North Dakota, Oklahoma, Oregon, South Dakota, Texas, Utah, Washington, Wyoming (in Big Horn River adjudication), and Nevada.

IV. Early General Stream Adjudications

- A. Some late-1800s adjudications were required by brokerage houses before irrigation companies could issue stock or by banks before they would grant loans. Correspondence concerning such requirements appears in discovery material disclosed in Arizona's adjudication of irrigation entities in the San Pedro River watershed.
- B. Progressive Era (1890-1920)
 1. Scientific management movement—The application of scientific principles to business and government was the goal of the scientific management movement, promoted by Frederick Winslow Taylor (1856-1915). Taylor, who had great influence on business and government, maintained that production efficiency

could be greatly enhanced by close observation of workers, the elimination of wasted time and motion, and work optimization through the “one best way” of organizational processes.

2. The Progressive Conservation Movement was more than a populist uprising; it also involved the application of multi-disciplinary, scientific theories to the nation’s natural resources by an appointed, politically independent, expert corps. The movement also manifested a strong instrumental, “one best way” approach to natural resource management. *See* SAMUEL P. HAYS, CONSERVATION AND THE GOSPEL OF EFFICIENCY: THE PROGRESSIVE CONSERVATION MOVEMENT, 1890-1920 (1959). As other scholars recall, the “social and political themes of the progressive era—reverence for scientific organization, technical competence and nonpartisan good government, and a strong commitment to supporting citizens against the trusts and monopolies—found their way into every aspect of conservation rhetoric and programs.” SAMUEL T. DANA & SALLY F. FAIRFAX, FOREST AND RANGE POLICY 69 (1980).
 3. The Progressive Conservation Era provided the context for improved water management for the widespread benefit of the public. In the West, this emphasis resulted in adjudications that supported the federal reclamation program, as well as adjudications that sought the integration of riparian and appropriative water right regimes.
- C. National Reclamation Act (1902)—The Reclamation Act was a populist program to utilize loans from public land sales to bring irrigation water to small farms in the West.
1. As the U.S. Reclamation Service began implementing the Reclamation Act, it became apparent that tattered and uncertain water rights records in many states would obstruct reclamation projects. To prevent this, the Secretary of Interior required in the contract with many local water users that they would “take prompt action to secure the determination by the courts of the relative rights of its shareholders to the use of the water for said lands,” Morris Bien, *Water*

Users Associations, in SAMUEL C. WIEL, WATER RIGHTS IN THE WESTERN STATES 1322 (1911).

2. Adjudications were a necessary element in reclamation projects undertaken in Nevada, Washington, Oregon, New Mexico, and other states.

D. Integration of Riparian and Appropriative Rights

1. In many midwestern states, the riparian doctrine governed water in the more humid areas while the prior appropriation doctrine developed in the more arid regions. Eventually, state economies were limited because of the difficult coexistence of these rights. Water development was frustrated because riparians could resist the diversion of water away from rivers and streams.
2. Stream adjudications played an important role in integrating the riparian and prior appropriation doctrines and, to a lesser extent, unifying laws pertaining to surface water and groundwater.
3. For instance, Kansas in 1945 eliminated any future distinction between surface water and groundwater. Also, the legislature required the chief engineer to determine pre-1945 rights and adjudicate them at their “maximum quantity and rate of diversion for the beneficial use made thereof.” KAN. STAT. ANN. § 82a-701(d) (1991). Between 1945 and 1956, the chief engineer investigated pre-1945 uses in every county and substantially completed this work.
4. Similar adjudications occurred in Nebraska, Oklahoma, and Texas.

E. Prospects for improved water management, envisioned by the Progressive Conservation Era, were not realized in many states. While Wyoming, Oregon, and Morris Bien had pioneered different methods for determining and integrating water rights, adjudication activity during the first half of the twentieth century was fragmented, haphazard, and incomplete in most states.

1. The Depression and World War II drained resources and interest away from these cases; and, increasingly, the federal government assumed a greater role in western water management starting in the 1930s with project construction in all major western river systems.
2. Also, state adjudications increasingly encountered the water right claims (under both federal and state law) of the United States. Unless the federal government

initiated an adjudication or agreed to be a party, the United States could interposing its sovereign immunity, fail to appear, and make an adjudication impractical.

V. The Federal McCarran Amendment

A. Post-World War II Realignment

1. After World War II, western states were concerned about the federal dominance in the West brought out by New Deal programs, war mobilization, and extensive federal land ownership in the West. For instance, the Pelton Dam case engendered fears of federal plenary control over all non-navigable waters arising on or flowing through federal reservations. *Federal Power Comm'n v. Oregon*, 349 U.S. 435 (1955). *See also United States v. California*, 332 U.S. 19 (1947), and other cases recognizing federal “paramount rights” over offshore oil leases in the marginal sea.
2. Western states sought to reverse federal dominance in several ways. For example, in 1953, Congress expressed its goal of terminating tribes. H. Con. Res. 108, 83d Cong., 1st Sess., 67 Stat. B132 (1953) (the Klamath Tribe of Oregon was among the largest affected). That same year, Public Law 280, 67 Stat. 588 (1953), authorized specified states to extend their criminal and civil laws over Indian reservations.

B. Passage of the McCarran Amendment (1952)

1. The McCarran Amendment, 43 U.S.C. § 666 (1994), which waives federal sovereign immunity in general stream adjudications, was a similar effort. The legislation began as an effort to secure state court jurisdiction over the United States in a small Nevada adjudication (Quinn River); but the legislation “caught the wave” of other major events and resulted in a more general realignment of water management authority in the West.
2. The legislation was the work of two Senators, Patrick McCarran of Nevada and Arthur Watkins of Utah, who had practiced water law in the rural West.
3. The legislation became linked with two major California water controversies; and, when the link was established, the passage of the amendment was assured.

- a. Friant Dam litigation—The efforts of landowners in the Fresno area to prevent the construction of a dam they believed would dewater the San Joaquin River had been frustrated by the United States. *See Dugan v. Rank*, 372 U.S. 609 (1963).
 - b. Santa Margarita conflict—In its efforts to obtain sufficient water for newly established Camp Pendleton, the U.S. Navy passed up the opportunity to cooperate with local water users on a reclamation project and initiated a massive federal court adjudication against hundreds of water users in the area. In December 1951, READERS DIGEST criticized the “lack of moral sensitivity in our Government which has put into jeopardy thousands of our small landowners; their property, homes, savings and their future.” The suit was condemned by every California official from Governor Earl Warren to Senator Richard Nixon. Senator McCarran wisely attached his proposal as an amendment to legislation limiting funding for this misguided adjudication.
- C. Extension of the McCarran Amendment to Federal Reserved Rights
1. After the legislation passed, it was not entirely clear to what extent the McCarran Amendment extended to federal reserved rights. Both the Quinn River and Santa Margarita River conflicts involved situations where the United States acquired lands already having state-law water rights.
 2. *United States v. District Court (Eagle County)*, 401 U.S. 520 (1971)—McCarran Amendment waives jurisdiction for state court adjudication of federal agency reserved water rights (here rights concerning the White River National Forest). *See also United States v. District Court (Water Div. No. 5)*, 401 U.S. 527 (1971).
 3. *Colorado River Water Conservation Dist. v. United States*, 424 U.S. 800 (1976) (*Akin*)—McCarran Amendment waives sovereign immunity over Indian reserved rights because “bearing in mind the ubiquitous nature of Indian water rights in the Southwest, it is clear that a construction of the Amendment excluding those rights from this coverage would enervate the Amendment’s objective.” *Id.* at 811.

4. *Arizona v. San Carlos Apache Tribe*, 463 U.S. 545 (1983)—Federal enabling acts for western states, even though they contain disclaimers of state jurisdiction over tribal lands, do not bar state court adjudications of reserved rights under the McCarran Amendment. *See also State ex rel. Greely v. Confederated Salish & Kootenai Tribes*, 712 P.2d 754 (Mont. 1985), and *United States v. Superior Court*, 697 P.2d 658 (Ariz. 1985), both holding that state constitutions containing similar disclaimer language do not, as a matter of state law, bar state courts from adjudicating Indian reserved water rights.

D. Requirements of a McCarran Amendment Adjudication

1. Suit—While the McCarran Amendment waives federal sovereign immunity when there is a “suit,” we have seen that state adjudications range from purely administrative to purely judicial procedures. Do all these proceedings satisfy the Amendment?
 - a. *United States v. Oregon*, 44 F.3d 758 (9th Cir. 1994), *cert. denied*, 116 S. Ct. 378 (1995)—The Oregon Department of Water Resources may prepare administratively a proposed order of determination so long as the United States and tribes have a opportunity for meaningful review by the Oregon courts.
 - b. The federal courts appear to be willing to uphold state adjudications with a strong administrative component so long as there is meaningful supervision and involvement by the judiciary. *But see Arizona v. San Carlos Apache Tribe*, 463 U.S. 545, 571 (state court decisions affecting Indian rights will receive “a particularized and exacting scrutiny commensurate with the powerful federal interest in safeguarding those rights from state encroachment.”).
2. Comprehensiveness—The McCarran Amendment does not use the term “comprehensive,” but a degree of inclusiveness is implied by the reference to a suit “for the adjudication of rights to the use of a river system or other source, . . .” 43 U.S.C. § 666(a). Comprehensiveness also suggests a meaningful opportunity to contest other rights that might affect your rights (*inter sese* adjudication). Comprehensiveness has three dimensions.

- a. Hydrologic comprehensiveness—How much of a river system must be adjudicated? Must the adjudication include groundwater in addition to surface water?
- [1] Montana has a state-wide adjudication of both surface water and groundwater, and Colorado has a state-wide adjudication of surface water and tributary groundwater. Other states are adjudicating smaller hydrologic areas (*e.g.*, Washington’s Yakima River adjudication) or only surface water (*e.g.*, Texas).
- [2] An adjudication can certainly be limited to a state’s own portion of an interstate river, *United States v. District Court (Eagle County)*, 401 U.S. 520 (1971). Wyoming includes groundwater in its adjudication, but the state supreme court ruled that the Wind River Tribes do not have rights in groundwater. *In re General Adjudication of All Rights to Use Water in the Big Horn River System*, 753 P.2d, *aff’d sub. nom. Wyoming v. United States*, 492 U.S. 406 (1989) (equally divided court). Even though Arizona’s adjudication does not extend to nonappropriable groundwater, the adjudication must be comprehensive enough to recognize federal reserved water rights in groundwater if necessary to fulfill the federal purposes for reserving the land. *In re the General Adjudication of All Rights to Use Water in the Gila River System and Source*, 989 P.2d 739 (Ariz. 1999).
- b. Use comprehensiveness—What type of water rights must be joined in the adjudication? Domestic, livestock, and wildlife uses constitute small amounts of water and, in water-rich states, may not affect federal and tribal rights. Legislatures and courts in almost every state have sought ways to exempt or adjudicate in a summary fashion these small uses. The challenge is to do so without running afoul of the McCarran Amendment.
- c. Temporal comprehensiveness—What priority dates must be joined in the adjudication? Montana, which had fragmented water rights records until 1973, is adjudicating all priorities prior to that date while exempting

permits issued subsequently. Oregon, which has had a permitting function since 1909, is adjudicating only pre-1909 water rights. The Ninth Circuit has upheld this limited adjudication, observing that “[t]he comprehensiveness standard requires the consolidation of existing controversies, not the reopening of settled determinations.” *United States v. Oregon*, 44 F.3d. 758, 768 (9th Cir. 1994), *cert. denied*, 116 S. Ct. 378 (1995).

VI. Post-1970s Adjudications

- A. Emphasis on Adjudications—The 1970s saw the commencement of major adjudications in the West. Three purposes were usually given for these adjudications:
 - 1. Confirm valid, existing water rights, especially in states that had unrecorded or unpermitted existing uses.
 - 2. Recognize, quantify, and prioritize federal reserved water rights.
 - 3. Complete a centralized water use information data base that would improve water management.
- B. Social, Political, and Legal Context for Post-1970 Adjudications—The convergence of major trends provided the context for these cases.
 - 1. Increased state-federal tensions and the lengthening shadow of federal reserved water rights—*Arizona v. California*, 373 U.S. 546 (1963), adopted a new standard for quantifying tribal reserved water rights (practicably irrigable acreage or “PIA”) and affirmed that federal agencies also could assert reserved rights. *Cappaert v. United States*, 426 U.S. 128 (1976), suggested that reserved rights could extend to groundwater. The “Krulitz Opinion,” issued of the Carter Administration’s Interior Department Solicitor, advanced the “nonreserved” federal water rights doctrine as the basis for asserting federal water rights to public domain lands and for the secondary purposes of reserved lands. 86 Interior Doc. 574.
 - 2. Reemergence of Tribal Self-Government and Advocacy—Many tribes who had witnessed almost 75 years of haphazard development of their Winters water rights, began to develop strategies for securing recognition and use of these

rights. The Native American Rights Fund and the American Indian Lawyer Training Program, among other organizations, provided information, training, and legal representation to tribes.

3. Rapid Growth of Western States—Between 1950 and 1970, the population of eighteen western states increased from 34 million to 53 million—55 percent. Before World War II, most westerners lived in rural areas. By 1970, almost 80 percent of the population lived in urban areas. This growth, especially by the cities, increased the pressure for new supplies and improved water management.
 4. Increased Competition for Water—Exacerbated by the energy crisis of the 1970s, many westerners believed they were running out of water. In the pristine Yellowstone River basin, energy plants were planning to utilize up to 2.6 million ac-ft/yr. Coal slurry pipeline proposals threatened to suck the Northern Great Plains dry. The demand for water was becoming more regional, leading to concerns that large amounts of water would be diverted from one state to another. The U.S. Supreme Court affirmed these concerns with its 1982 decision in *Sporhase v. Nebraska*, 458 U.S. 941 (1982), striking down certain state restrictions on out-of-state water diversions.
- C. Race to the Courthouse—With these tensions growing, states, tribes, and the federal government all raced to their favorite courthouse to secure a perceived advantage in the inevitable, upcoming litigation. Some of the adjudications that resulted are as follows:
1. Arizona—Between 1974 and 1979, various state-law water users filed administrative petitions to adjudicate portions of the Gila River and Little Colorado River systems. In an effort to avoid McCarran defects, the legislature in 1979 transferred these cases to the courts. *See* ARIZ. REV. STAT. §§ 45-251 to -260 (1994 & Supp. 2000-01). Between 1979 and 1986, almost 1 million landowners were served resulting in 77,000 claims asserted by 27,000 parties (including claims for thirteen Indian reservations and other federal lands).
 2. Idaho—Drought and increased consumptive use in the late 1970s made improved water management a necessity, but unsettled state and federal claims remained a barrier. In 1984, the state and the Idaho Power Co. reached an

agreement by which the company agreed to limit its exercise of apparently senior rights that would curtail many other uses. In exchange, the state agreed to conduct an adjudication of the Snake River system, encompassing the vast majority of water uses in the state. 1985 Idaho Sess. Laws 286, (codified at IDAHO CODE §§ 42-1401 to -1428 (1996)).

3. Montana—Passage of the 1972 Constitution provided the state with the opportunity to adopt mandatory permitting and adjudication procedures. The result was the Water Use Act of 1973 that set in motion a state-wide adjudication of the Powder River basin. Delays in the predominately administrative procedure, and competing federal and tribal efforts to lodge the adjudications in federal court, resulted in the legislature creating a state-wide, specialized water court in 1979. *See* MONT. CODE ANN. §§ 85-2-211 to -243, -701 to -705 (1999). The adjudication is the largest in the West with over 210,000 claims.
 4. Washington—The adjudication of the Yakima River basin is occurring in the state court case of *State v. Acquavella*, No. 77-201484-5 (Yakima County Super. Ct. filed 1977). The 4,000 claims before the court represent as many as 40,000 uses including a reclamation project, other water provider entities, and the Yakima Nation.
 5. Wyoming—The state legislature authorized the adjudication of the Big Horn River and filed the case within the early part of 1977, all in an effort to defeat federal court jurisdiction. *In re General Adjudication of the Big Horn River System*, No. 77-4993 (Washakie County, Wyo. Dist. Ct. filed Jan. 22, 1977) (now docketed as No 86-0012). Although Wyoming’s adjudications are usually administrative, the court has appointed a series of special masters to conduct most of the proceedings. The case, resulting in recognition of a 500,000 ac-ft/yr water right for the tribes of the Wind River Reservation, is substantially complete although issues such as the rights of allottees are still nagging.
- D. Status of Adjudications—None of the major western adjudications commenced in the 1970s and 1980s are complete although significant progress has been made in Wyoming, Montana and Idaho. Some states may have to extend their adjudications

to other parts of their states (*e.g.*, Oregon, Washington). Other states having little or no adjudication activity may be forced to commence adjudications in the future in order to address federal reserved water rights or groundwater usage (*e.g.*, California, North Dakota, South Dakota, Nebraska, Kansas, Oklahoma). Having conducted rolling adjudications of state rights for over 100 years, Colorado is now incorporating federal agency rights into its divisional decrees; the rights of the Colorado Ute Tribe are expected to be finalized by a federal settlement. For a status of western adjudications, see Appendix B.

VII. Assessment of General Stream Adjudications

- A. Original Purposes—We identified three original purposes for adjudications (recognizing and quantifying existing water rights, quantifying reserved rights and integrating them into the prior appropriation doctrine priority system, and creating a centralized set of water use records). General stream adjudications are probably necessary for only one of these purposes.
1. Water use information can and is being obtained from a variety of sources, *e.g.*, claimant filings, existing departmental records and filings, aerial and satellite imagery, and remote sensing technologies. More intensive field work can be done when necessary for “hot spot” trouble areas—and certainly more rapidly than through the adjudications.
 2. An authoritative determination of existing water rights would be nice but is probably less important in the real world.
 - a. When land with water rights is being sold, transactions are made possible by a “risk assessment” by the purchaser—not unlike the abstract process for eastern land titles.
 - b. When water rights are being transferred, an administrative or judicial process is often necessary anyway to determine the consumptive use amount--a characteristic usually not decreed in adjudications.
 - c. In certain water-short areas, water rights enforcement is necessary; but many existing adjudications, because they omit groundwater or other uses, will not provide the legal basis to enforce against some users who

contribute to the problem. In these “hot spot” areas, a targeted adjudicated of most surface and groundwater uses will be necessary before effective administration can occur.

3. The real purpose of western stream adjudications has been to recognize and determine federal and tribal reserved rights; but this has been accomplished by encouraging settlements under the pressure of litigation rather than by litigation itself. I am aware of only three instances where Indian reserved rights have been litigated to substantial completion (Wind River Reservation, Mescalero Apache, Yakima Nation). By comparison, approximately seventeen Indian water right settlements have been completed.

B. How far along are the adjudications?

1. The glass half-full—Under the most optimistic view, one could argue that western adjudications are one-half completed.
2. The glass half-empty—The pessimist would respond that much work remains and even in matters or areas where the adjudications have treaded, gapping holes remain:
 - a. Groundwater has been unaddressed in many states, *e.g.*, Arizona (outside Active Management Areas), California, Colorado (except for tributary groundwater), New Mexico, Texas, and others.
 - b. Many of the largest, senior water claims or uses have yet to be addressed: Arizona (Salt River Project, Navajo Nation, Gila River Indian Community (early phases), City of Phoenix), New Mexico (Elephant Butte, City of Albuquerque), Montana (Blackfeet Tribe, Flathead Tribes), Oregon (Klamath Tribe, just underway), South Dakota (all tribal claims), North Dakota (all tribal claims), Kansas (all tribal claims), Nebraska (all tribal claims), and Oklahoma (all tribal claims).
 - c. Even work that has been accomplished may be unraveling, *e.g.*, in Oregon, some parties are seeking to reopen federal court decisions concerning federal rights; Texas may need to go back and adjudicate groundwater.

C. Many of the adjudications are scrupulously avoiding some of the most important and difficult water issues:

1. Separate groundwater and surface water regimes—In many states, nontributary groundwater is not reached by the state permitting and adjudication statutes. In the face of takings challenges, courts are naturally leery of asserting adjudicatory authority over these uses or do so in tangential way *e.g.*, Arizona, by extending the potential reach of federal reserved rights to groundwater; Colorado, by extending jurisdiction to tributary groundwater. *But see Upper Black Squirrel Creek Ground Water Management Dist. v. Goss*, No. 99SA96 (Colo. Feb. 22, 2000) (groundwater management districts have authority to enforce permits and priorities of wells under modified system of prior appropriation governing designated groundwater).
2. Water quality aspects—An adjudication decree may provide you with an enforceable right to a quantity of water but it will not decree a level of water quality. Water users must rely on other state and federal laws or bring separate legal actions against upstream offenders.
3. Reasonable use and conservation—Most states are reluctant to scrutinize the reasonableness of claimed water uses unless the state engineer or department flags the use as several deviations beyond the norm or a serious challenge is mounted by an objector.
 - a. The tendency is to decree historic uses, at least when the state engineer/department verifies that those amounts have been recently used. *See Department of Ecology v. Acquavella*, 935 P.2d 595 (Wash. 1997); *see also State v. Grimes*, 852 P.2d 1044 (Wash. 1994) (“reasonable efficiency test,” as used by the department, was invalid when applied to an irrigation water right).
 - b. Neighbors are likely to be knowledgeable about unreasonable water practices, but many of them are reluctant to bring departmental scrutiny among themselves or trigger retaliatory actions from other water users.
 - c. Often federal and tribal parties are forced, through their objections, to take the leading role in reviewing state-based rights for reasonableness, but this role further alienates the federal and tribal parties from other water users in the adjudications. Ironically, when federal agency and tribal rights are

before the court, the reasonableness and efficiency of the claims (at least in the case of PIA) are rigorously tested by the other litigants.

4. Threatened and endangered species—The uncertainties caused by the Endangered Species Act are reverberating throughout the West; but the adjudications, which are premised on reducing uncertainty, are generally not addressing this issue.
- D. Adjudications are not comprehensive—The goal of comprehensiveness has never achieved, except in isolated instances, since most states exempt certain sources of water (*e.g.*, groundwater), certain types of users, and certain types of rights from adjudication. The goal of comprehensiveness was to protect the United States and other parties from having to repeatedly defend their water rights in separate cases. This admirable goal has been outweighed by the risk and cost of thousands of parties having to participate in permanent, costly, and risky complex litigation. Adjudication jurisdiction, however, must be broad enough to provide for meaningful enforcement of decreed water rights.
- E. Administration and enforcement are delayed—Water rights administration has always been uneven in the West and, unfortunately, the decades of adjudication have diverted attention and resources away from these water management functions.
1. In many states, the state engineer/department has taken the reasonable position that administration is impossible or impractical unless water rights are clarified. This abstention, while intended only for a few years, has often extended for decades. When asked, most state engineers or departments will admit that waste or unreasonable uses occur, but they lack the legal basis, political independence, or resources to address them.
 2. The state engineer/department often looks to the court to delineate the post-decree administrative structure and procedure, but the courts often take the position that the adjudication of the rights alone is itself a daunting task, too much attention on administrative issues stirs up even more controversy, and many of these issues are poorly decided in the abstract.
 3. That said, the court, state engineer or department, and parties are all guilty of giving insufficient attention to the post-decree structure and process.

- F. Cost—One of the most remarkable features of western adjudications is that no one knows how much they cost. The financial data may exist, but they are dispersed among court agencies, administrative departments (state, federal, tribal, local), and countless private parties. The data have never been aggregated in a meaningful way although there is antidotal information about the cost, *e.g.*, \$30-40 million in Wyoming’s Big Horn River adjudication, \$50-100 million for the first phase of the Arizona adjudications, \$22 million in Montana, \$20 million in Texas, \$20 million in Idaho. The foregone opportunities for improved water management (*e.g.*, water conservation devices, municipal water supply systems for Indian tribes, water right purchases for instream flows) must be enormous.
- G. Irrelevancy—Many western adjudications have gradually slid into obsolescence. Because of their large size, limited scope, and susceptibility to delay, adjudications have not been able to stay ahead of the West’s problems, *e.g.*, growth, economic transformation, and the need to rectify the environmental abuses of the past.
1. Water users and public officials gradually realized they needed to work around the adjudications, *e.g.*, water right transfers and exchanges, forbearance agreements, conservation measures including canal lining, water reuse, groundwater recharge, and water banks. While these innovations were not easy, they could be achieved more cheaply, rapidly, and with greater flexibility and focus on the underlying water management problem. At the same time, the Endangered Species Act has become the central feature of western water management, poised to trump the adjudications.
 2. General stream adjudications are no longer *the* principal dramatic performance. Rather, they are only the *stage* on which other more important plays are being performed.
- H. Increasing jurisdictional complexity—The proponents of the McCarran Amendment probably envisioned a rather simple case (usually in state court) where all the water issues concerning a river system might be addressed and answered. However, adjudications do not write upon a *tabula rasa*.
1. In most watersheds, state and federal courts have litigated some aspect of water, *e.g.*, an old water rights decree, cases under the Indian Claims Commission Act,

reclamation law, a regulatory aspect of a FERC hydropower license, or a flow restriction based on the Endangered Species Act or Native American Graves Protection Act. Many adjudications occur on interstate or even international rivers with interstate compacts, U.S. Supreme Court decrees, or international treaties. Some state-law water rights are used within the boundaries of Indian reservations.

2. In short, there are a host of complex intergovernmental considerations that limit the effectiveness of an adjudication court decree. The processes for cooperation among these various federal-state-tribal entities are not well developed and, without careful diplomacy and sensitivity, any of them can escalate into an intergovernmental crisis. The law of any river system will become more, not less, complex as the result of the adjudications and other developments in the water resources field.
- I. Adjudications disrupt community relations—This is a common and often true complaint about adjudications.
 1. In some cases, a state-inspired adjudication has actually disrupted longstanding, informal water sharing agreements among users.
 2. In other instances, an adjudication portends the recognition of senior federal or tribal rights, finally allowing the development of those rights, and thereby curtailing the previously unrestricted use of this water by others. Water users and involved governments must move on to the more critical question: How can conflict be managed and mitigated? Is a settlement possible within the context of the adjudication? Is a physical solution possible to mitigate the curtailment of existing uses?
 - J. Public processes and information—Western water law has frequently been criticized as a closely held game where expert knowledge, wealth, and longstanding personal relationships are more important than the strength of legal rights.
 1. In states where water is considered a public resource, many citizens who are not parties nevertheless have a legitimate interest in the state's water policy affairs, but courts are reluctant to expand standing requirements to allow even more people into the litigation.

2. Often the public has little knowledge about the decisions and who makes them concerning a vital resource. Despite public information programs, newsletters, and web sites, adjudications have generally not improved public understanding of water law or public involvement in legal processes affecting water. Even if one wishes to participate, the cost is high in terms of time and resources. The adjudications drag on for decades; rare is the individual who can remain focused for so long.
- K. See Reed D. Benson, *Can't Get No Satisfaction: Securing Water for Federal and Tribal Lands in the West*, 30 ENVTL. L. REP. 11056 (Nov. 2000), for another recent assessment of the “pre-adjudication” and “adjudication” problems of state-based adjudications.
1. “Pre-adjudication problems”—States refuse to recognize unadjudicated rights; states are slow to begin adjudications; states and users oppose federal court actions to establish reserved rights; states and users oppose federal efforts to satisfy unadjudicated rights.
 2. “Adjudication problems”—State adjudications are a hostile forum for federal and tribal claims; results in state courts can frustrate protection of federal interests; adjudications offer little or no real public participation.

VIII. Reform Proposals

- A. Administrative inventory of federal rights
1. Federal government should administratively determine its water needs for the next 40 years, followed by federal court review of decisions and compensation for any pre-1963 (*i.e.*, pre-*Arizona v. California*) state-law right holder who is injured by exercise of federal reserved rights. PUBLIC LAND LAW REVIEW COMM’N, ONE THIRD OF THE NATION’S LAND 462 (1970).
 2. See also Proposed Bill to Provide for the Inventorying and Quantification of the Reserved, Appropriative and Other Water Rights to the Use of Water by the United States (1975) (“Keichel Bill”; never introduced); Walter Keichel, Jr. & Kenneth J. Burke, *Federal-State Relations in Water Resources Adjudication and*

Administration; Integration of Reserved Rights With Appropriative Rights, 18 ROCKY MT. MIN. L. INST. 531 (1973).

- B. Congressional quantification of federal water rights
1. Prospective quantification—When withdrawing land, Congress should expressly declare that water is being reserved, acknowledge pre-existing rights, and compensate for any state-law rights affected by federal rights. *See, e.g.*, Western Water Rights Settlement Act, S. 863, 84th Cong., 1st Sess. (1955).
 2. Procedures and criteria for quantifying reserved water rights with compensation to holders of state-law water rights injured by the exercise of federal reserved rights. President’s Water Policy Statement on Federal and Indian Reserved Water Rights (June 6, 1978), *set forth as* App. II, U.S. General Accounting Office, *Reserved Water Rights for Federal and Indian Reservations: A Growing Controversy in Need of Resolution* (Nov. 16, 1978). *See also* H.R. 9951, 95th Cong., 1st Sess. (1977) (quantification of existing Indian reserved rights based on highest annual water use during preceding five years).
 3. Proposal for a regional watershed settlement of Indian water rights with the Secretary of the Interior acquiring by purchase or condemnation those water rights necessary to satisfy Indian reserved rights (in this case, five Arizona Indian tribes). Central Arizona Indian Tribal Water Rights Settlement Act, S. 905, 95th Cong., 1st Sess. (1977).
- C. Amendments to the McCarran Amendment
1. Remove the requirement of a “suit.” Allow general stream adjudications to be less comprehensive with emphasis on determining federal reserved water rights. Michael D. White, *McCarran Amendment Adjudications—Problems, Solutions, Alternatives*, 22 LAND & WATER L. REV. 619, 628 (1987).
 2. Extend waiver of federal sovereign immunity to include state administrative processes. Prospectively, federal land withdrawals should not imply a reservation of water. State Water Sovereignty Protection Act, H.R. 2555, 104th Cong., 1st, Sess. (1995) (Crapo, ID).
- D. Federal court adjudication of Indian reserved rights—Quantification of these rights is necessary but should occur in a focused fashion in federal court. *See* Scott B.

McElroy & Jeff J. Davis, *Revisiting Colorado River Water Conservation District v. United States—There Must be a Better Way*, 27 ARIZ. ST. L.J. 597 (1995); *see also* Reed D. Benson, *Can't Get No Satisfaction: Securing Water for Federal and Tribal Lands in the West*, 30 ENVTL. L. REP. 11056 (Nov. 2000).

E. Other recommendations

1. Federal agencies should conform to state law in establishing, recording, and quantifying both existing and future water rights. Indian reserved rights should be judicially determined with the federal government leasing water to mitigate injury to pre-1963 state-law rights resulting from exercise of these Indian reserved rights. NATIONAL WATER COMM'N, WATER POLICIES FOR THE FUTURE 459-83 (1973).
2. Additional resources—Federal government should increase financial resources for negotiation, litigation, and implementing settlements. Federal negotiating teams should have more authority. The federal government should clarify its policy concerning the marketing of Indian water. WESTERN WATER POLICY REVIEW COMM'N 6-10 (1998).
3. Incentives program—Congress should provide financial assistance to states that pledge “swifter recognition of federal and tribal claims” through their adjudications. The adjudications should also provide for more public involvement. Reed D. Benson, *Can't Get No Satisfaction: Securing Water for Federal and Tribal Lands in the West*, 30 ENVTL. L. REP. 11056, 11060 (Nov. 2000) (“there is a much better public process for many decisions [concerning public lands] that are arguably ‘smaller,’ such as mineral leases, grazing permits, and water supply contracts” than in the adjudications).

IX. Recommendations

- A. “Hot-Spot” Adjudications—Massive, comprehensive adjudications should be deemphasized. Water adjudications should be used as a more utilitarian tool of overall water management. Adjudication resources should be targeted on those areas where water problems are critical. The defendants in such litigation should be

carefully selected to ensure that the critical water problem will be addressed. “Comprehensiveness” requirements should not be a barrier to such targeted litigation.

- B. Coordination Between Federal and State Courts—While federal and state courts are separate judicial systems, they should attempt some coordination of water litigation in the same state or river system. New Mexico’s experience suggests that this may be possible, especially with a case management strategy negotiated among the courts and parties. Conflicts may be reduced, decisionmaking capacities increased, and long-term water management improved.
- C. Class and *Parens Patriæ* Representation—In most adjudications, the determination of federal reserved water rights is the most important issue. Adjudications could be simplified if divided into two phases; (1) the determination or reexamination of state-law rights using administrative processes; and (2) reserved water rights litigation, before state or federal court, including the United States, any involved tribes, and the state as *parens patriæ* for all state-law based water users. See *Hinderlider v. La Plata River & Cherry Creek Ditch Co.*, 304 U.S. 92 (1938) (“Whether the apportionment of water . . . [is] made by compact . . . or by a decree of this Court, the apportionment is binding upon the citizens of each state and all water claimants, even where the State had granted the water rights before it entered into the compact.”). A similar recommendation was made by the National Water Commission in 1973. NATIONAL WATER COMM’N, WATER POLICIES FOR THE FUTURE 459-83 (1973).
1. Federal agencies and Indian tribes, like all senior water right users, are concerned about potentially being able to enforce their senior rights against other water users who might intercept water during drought. They are less concerned about the minutiae of junior water rights; but in many adjudications, they scrutinize every water right because their own water rights have not yet been recognized and they fear the water supply is being given away in small increments to everyone else.
 2. These federal and tribal concerns appear to be addressed by (1) early determination of federal and tribal rights (hopefully by settlements motivated by litigation); and (2) broad court jurisdiction over all sources and uses (even if those uses are not yet adjudicated) that potentially diminish the federal and

tribal rights. Extensive jurisdiction at least gives federal and tribal parties the potential of enforcing their senior rights.

3. State-law water users are vitally interested in how senior federal and tribal reserved rights are adjudicated, but the vast majority of these users lack the financial resources to participate in the complex litigation that surrounds reserved rights. Also, the alignment of interests in many of these changes is fundamentally bipolar, *e.g.*, potentially senior reserved right holders v. apparently junior state-law users. This type of litigation, either before federal or state court, could be limited to the United States, the affected Indian tribes, and the state appearing as *parens patriae* in behalf of the state-law water users. Alternatively, the state-law water users could be organized a few, distinct classes (*e.g.*, water users with priorities senior to the federal or tribal claimant, water users with junior priorities) and represented by an appropriate class representative.
 4. The resulting litigation would be final. Disgruntled water users would have only damage remedies against the state or their representative for breach of representational responsibilities.
 5. The McCarran Amendment should be interpreted or amended to allow these innovations.
- D. Mediation and Settlement—Alternative dispute resolution processes should be built into all adjudication procedures, whether before administrative agencies or courts. These processes should include the use of independent, trained mediators or settlement judges.
1. Vigorous efforts should be continued to resolve by settlement the large reserved water right claims of Indian reservations and federal agencies. States, tribes, and the federal government need to dedicate sufficient staff resources to negotiation efforts.
 2. When evaluating proposed Indian water right settlements, the federal government should consider not only avoided litigation costs but also the opportunity to address historic injustices and fulfill the continuing federal trust obligation to support viable tribal communities and the settlement's potential to

benefit local, state, and national economies. *See Proposed Resolution of the ABA House of Delegates Supporting the Settlement of Indian Water Right Claims and the Implementation of those Settlements* (scheduled for consideration at ABA Annual Meeting, Aug. 2001). Also, because of congressional budget caps, Indian water right settlements should not be forced to compete with other Interior Department funds. *See Sen. Pete Domenici's proposed budget cap adjuster for appropriations for Indian water rights and land claims settlements, described in Questions and Answers Regarding the Domenici Amendment to the Budget Act* (April 24, 2001).

- E. Internet technologies have the potential of changing how we conduct many aspects of adjudications and water management.
 - 1. In adjudications, after jurisdiction has been secured over water users in conventional ways, further notices, pleadings, and discovery could be distributed by email. Less active parties could monitor hearings by accessing streaming audio. Routine hearings could be conducted entirely on the internet, combining video, audio, and document transmissions. Some issues could be entirely litigated on-line, much like domain name disputes are being resolved through on-line arbitration.
 - 2. Departments could streamline their permitting functions by giving notice of pending permit and change applications to potentially affected water users by email. Approved, interactive, internet-based hydrologic models might allow an existing water user to assess the impact of a proposed permit or change upon his or her water right.
- F. Water Rights are Messy—At the end of the day, the recognition and use of water rights is a messy process. After almost 50 years of experience attempting to conduct McCarran Amendment adjudications, we have learned to expect nothing else.

APPENDIX A:
CITATIONS TO GENERAL STREAM ADJUDICATION STATUTES

ALASKA STAT. §§ 46.15.060, .065, .165 to .169 (1995).
ARIZ. REV. STAT. ANN. §§ 45-251 to -264 (1994 & Supp. 1996-97).
CAL.WATER CODE §§ 2000-2900 (West 1971 & Supp. 1996).
COLO. REV. STAT. ANN. §§ 37-92-101 to -602 (West 1990 & Supp. 1996).
IDAHO CODE §§ 42-101 to -1428 (1996).
KAN. STAT. ANN. §§ 82a-704 to -704c, -719, -720, -724 & -725 (1989).
MONT. CODE ANN. §§ 85-2-211 to -243, -701 to -705 (1995).
NEB. REV. STAT. §§ 46-226 to -231 (1993 & Supp. 1995).
NEV. REV. STAT. ANN. §§ 533.090-320, 534.100 (Michie 1995).
N.M. STAT. ANN. §§ 72-4-13 to -19 (Michie 1985).
N.D. CENT. CODE §§ 61-03-15 to -20 (1995).
OKLA. STAT. ANN. tit. 82, §§ 105.6 to .8 (West 1991).
OR. REV. STAT. §§ 539.005 to .240, .300-350, 541.310 to .320 (1995).
S.D. CODIFIED LAWS §§ 46-10-1 to -13 (Michie 1987).
TEX. WATER CODE ANN. §§ 11.301 to .341 (West 1988).
UTAH CODE ANN. §§ 73-4-1 to -24 (1989 & Supp. 1996).
WASH. REV. CODE §§ 90.03.110 to -.245 (1994 & Supp. 1995).
WYO. STAT. §§ 1-37-106, 41-4-301 to -331 (1988 & 1995).

APPENDIX B:

STATUS OF WESTERN GENERAL STREAM ADJUDICATIONS

River System	When Completed	Number of Claims/ Parties	Scope	Distinguishing Features
ALASKA (626,932 pop.*)—No adjudications pending but could occur if United States seeks to quantify water rights for any of the extensive land holdings in the state				
ARIZONA (5,130,632 pop.)				
•Gila River adjudication	1974	•67,000 claims/ 24,000 persons	Includes 2/3s of state; almost all populated areas; all major cities, towns, industries; 15 reservations (including Navajo, Hopi, Apache, Pima-Maricopa); federal agencies	•Proceedings pending before 2 superior court judges sharing same special master •Difficult issues concerning amount of groundwater to be adjudicated •4 completed Indian water rights settlements
•Little Colorado River adjudication	1978	•11,000 claims/3,000 persons		
CALIFORNIA (33,871,648 pop.)				
To date, proceedings completed or pending re 93 river systems or groundwater basins	Ongoing	Variable; typical case includes several hundred parties	•Most surface water proceedings in northern part of state •Most groundwater proceedings in southern part of state	Proceedings may be brought in superior court or before State Water Resources Control Board
COLORADO (4,301,261 pop.)				
Statewide	1879	Cumulatively, all water users who seek legal recognition of their rights	All surface & groundwater users who seek legal recognition of their rights	•Ongoing adjudication in 7 districts •Court issues monthly supplements •Difficult issues remain re federal reserved rights for federal lands
IDAHO (1,293,953 pop.)				
Snake River adjudication	1987	110,000 persons/ 185,000 claims	All surface & groundwater in major river basin covering 90% of state	District court judge, with masters, assigned long-term to preside over case •Extensive federal claims (65,000)
KANSAS (2,688,418 pop.)—No adjudications pending but could occur if Iowa, Kickapoo, Sac & Fox or Potawatomi Tribes seek to quantify their water rights				

River System	When Completed	Number of Claims/ Parties	Scope	Distinguishing Features
MONTANA (902,195 pop.)				
Statewide	1973	216,000 claims/ 80,000 persons	<ul style="list-style-type: none"> •All water in state with exception of small uses •7 reservations & 2 national parks •Other extensive federal land holdings 	<ul style="list-style-type: none"> •Specialized water court with chief water judge & masters •Statutorily created Reserved Water Rights Compact Comm'n negotiates with federal government & tribes; 9 compacts substantially complete
NEBRASKA (1,711,263 pop.)				
Statewide	1895	Unknown	Administrative adjudications of surface water completed between 1895 & 1904	Other adjudications could occur if Iowa, Omaha, Sac & Fox, Santee, or Winnebago Tribes seek to quantify their water rights
NEVADA (1,998,257 pop.)				
<ul style="list-style-type: none"> •Ongoing statewide adjudication of selected rights •5 active cases plus Owyhee River case (Duck Valley Reservation); recent activity in Las Vegas groundwater basin 	1903	Variable	Adjudication of prestatutory water rights (<1905 for surface water; <1913, 1939 for groundwater)	<ul style="list-style-type: none"> •State adjudications are hybrid process involving state engineer & district court •Adjudications of Truckee & Carson Rivers completed in federal court •Extensive federal agency claims throughout state
NEW MEXICO (1,819,046 pop.)				
<ul style="list-style-type: none"> •Ongoing statewide adjudication •13 rivers now being adjudicated 	Since 1907; most recent cases filed between 1956-1984	24,000 parties	<ul style="list-style-type: none"> •Surface water & groundwater in declared basins •Involves major cities, towns & industries, 17 pueblos & reservations, traditional Hispanic communities, numerous federal agencies 	<ul style="list-style-type: none"> •7 adjudications pending in federal court & 6 in state district court •State engineer prepares reports for both courts •Settlement of claims of Jicarilla Apache Tribe
NORTH DAKOTA (642,200 pop.)—No adjudications pending but could occur if tribes of Fort Berthold or Standing Rock Reservations seek to quantify their water rights				

River System	When Completed	Number of Claims/ Parties	Scope	Distinguishing Features
OKLAHOMA (3,450,654 pop.)				
<ul style="list-style-type: none"> •5 adjudications completed in 1950s •No pending adjudications 	1950s	Unknown	Appropriative & some riparian rights	<ul style="list-style-type: none"> •Hybrid proceedings with State Water Resources Board preparing report for court •Other adjudications could occur if any of numerous tribes in state seek to quantify their rights
OREGON (3,421,399 pop.)				
<ul style="list-style-type: none"> •Ongoing statewide adjudication •3/4s of watersheds have been adjudicated •Klamath River Basin adjudication pending •Warm Springs Settlement in 1997 	1909	286 claimants in Klamath adjudication (including irrigation districts & Tribe)	Federal & tribal water rights & pre-1909 state water rights	<ul style="list-style-type: none"> •Hybrid system with significant administrative authority •State Water Resources Dep't receives claims, holds hearings & prepares proposed order of determination for circuit court
SOUTH DAKOTA (754,844 pop.)				
No adjudications pending	1955, 1979	None	<ul style="list-style-type: none"> •Administrative adjudication system in place for all state-law water rights •1979 legislation authorized judicial adjudication of Indian & federal agency rights plus 50,000 other users 	<ul style="list-style-type: none"> •Governor withdrew funding for adjudication filed in 1979 & case was dismissed •Sioux Tribes discussing need for asserting their water right claims
TEXAS (20,851,820 pop.)				
<ul style="list-style-type: none"> •Judicial adjudications of Rio Grande Valley •Administrative adjudications throughout remainder of state 	1950, 1967	<ul style="list-style-type: none"> •3,000 parties in Rio Grande cases •18,000 claims throughout remainder of state 	<ul style="list-style-type: none"> •Adjudication of only surface water •Few federal or tribal claims 	<ul style="list-style-type: none"> •Administrative adjudication commenced in 1967 largely completed by 1990 •Some claims in Rio Grande Valley still to be heard •Conflicts over groundwater (e.g., Edwards Aquifer) may result in need for groundwater adjudications

River System	When Completed	Number of Claims/ Parties	Scope	Distinguishing Features
UTAH (2,233,169 pop.)				
<ul style="list-style-type: none"> •Ongoing statewide adjudication •13 river systems currently being adjudicated 	1919, 1950s	Number of claimants in cases range from 200 to 200,000 (when Salt Lake Valley adjudication begins)	<ul style="list-style-type: none"> •Adjudications begun after 1919 statute addressed only surface water & may be redone •Adjudications since 1950s have addressed surface & groundwater 	<ul style="list-style-type: none"> •Hybrid system with state engineer filing proposed determination with court followed by subsequent proceedings •Tribal & federal rights have not been addressed in litigation but are subject of ongoing negotiations
WASHINGTON (5,894,121 pop.)				
<ul style="list-style-type: none"> •Ongoing adjudication of most river basins of state •Yakima River adjudication most active 	1917 1977	In Yakima adjudication, 2,100 claimants represent 40,000 persons	Yakima adjudication limited to surface water but joins claims of Yakima Indian Reservation, federal reclamation project, 13 cities & 85 other major water providers	<ul style="list-style-type: none"> •Hybrid system with significant administrative authority •State Dep't of Ecology receives claims, holds hearings & prepares proposed report for superior court •Judge has been conducting hearings on major claims
WYOMING (493,782 pop.)				
<ul style="list-style-type: none"> •Ongoing statewide, administrative adjudication of state-law water rights •Big Horn River adjudication (judicial) 	1890 1977	Unknown	<ul style="list-style-type: none"> •Administrative adjudication of all water rights in all parts of state •Big Horn River adjudication addresses surface & groundwater rights in northwestern part of state 	<ul style="list-style-type: none"> •Last of three phases of adjudication underway •Rights of Wind River Reservation adjudicated after U.S. Supreme Court affirmed lower court •Allottee water rights & state-law water rights now being adjudicated
*Population figures from 2000 U.S. Census				